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### RESEARCH ARTICLE

#### PELLAGRA: A RARE COMPLICATION OF ANOREXIANERVOSA

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#### Abstract

Although pellagra appears to be a rare entity now, it can still develop. It is important to recognize how the disease manifests to ensure proper and prompt treatment. We present a case of pellagra secondary to anorexia nervosa in a 25-year-old woman.

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#### Introduction:-

Pellagra is a rare systemic disease, with a clinical triad of skin, digestive and sometimes neurological symptoms, which can be seen at any age and is more frequent in developing countries. It is secondary to a deficiency of niacin (vitamin PP or B3). In case of delay in diagnosis and treatment, pellagra is fatal (1).

We report the observation of pellagra secondary to anorexia nervosa in a young 25-year-old female patient.

#### Observation:-

The patient was 25 years old and had a history of acromegaly secondary to an operated pituitary adenoma, complicated by adrenal and thyroid insufficiency.

Hospitalized for alteration of the general state, with asthenia and a weight loss of 15kg, evolving for three months.

The interrogation revealed eating disorders such as restrictive anorexia nervosa.

The clinical examination found a hypotensive patient (BP 90/52 mmHg), bradycardic (FC: 56bpm) the dermatological examination highlighted a skin rash made of hyperpigmented patches with sharp contours covered with ichthyosiform scales (fig 1, 2). These lesions were located bilaterally and symmetrically on the backs of the hands and feet, and were associated with fissured dry cheilitis and depapillated glossitis.

The neurological examination revealed neurological disorders such as bradypsychia and memory impairment.

Moreover, the patient did not report any digestive disorders.

Dermoscopy showed (fig 3) white scales on a pigmented background.

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The skin biopsy showed the presence of parakeratotic hyperkeratosis associated with a focal pigmentary incontinence.

Biological workup revealed a malabsorption syndrome (Hypoalbuminemia, microcytic anemia, low ferritinemia).

Fiberoptic colonoscopy and thoracic-abdominal-pelvic CT scan were normal; vitamin B1, B6, B12 and zinc levels were not available.

The diagnosis of pellagra was retained. A high-calorie; high-protein diet and oral niacin supplementation were prescribed. The skin lesions improved significantly but did not completely disappear. The patient was referred to a psychiatric consultation for treatment.

### Discussion:-

Pellagra is caused by a cellular deficiency of niacin or its precursor amino acid; tryptophan.

Primary pellagra occurs when there is a dietary deficiency of tryptophan or niacin. Secondary pellagra is caused by conditions characterized by interference with the absorption or metabolism of tryptophan and niacin, such as anorexia nervosa, chronic alcoholism, prolonged diarrhea, ileitis, colitis, cirrhosis, carcinoid syndrome, Hartnup's disease and HIV. (2)

Neurologic symptoms are usually subtle and nonspecific, but if left untreated, may progress to death from multiorgan failure. (3) Therefore, mucocutaneous signs provide important diagnostic clues. The diagnosis of pellagra is clinical; it presents as an acute, symmetrical, erythematous rash, well demarcated in the photo-exposed areas; and is confirmed by a rapid response to oral nicotinamide when up to 500 mg per day in divided doses is administered. (4)

Histology is non-specific. (5) Vitamin assay should not delay treatment. Substitutive treatment leads to a rapid regression of cutaneous, neurological and digestive signs. Polyvitamin complexes are often necessary because of multiple vitamin deficiencies. Etiological treatment is essential.

In patients with anorexia nervosa, the signs of pellagra may be atypical and overlap with other nutritional deficiencies. (6, 7)

Our patient did not initially present with obvious signs of anorexia nervosa or body image problems. The diagnosis was made only after clinical suspicion led to a careful examination of the dietary history.

### Conclusion:-

Although rare, pellagra is a disease that is still prevalent and deserves to be known because of its potentially fatal course.

### Figures:



**Fig1, 2:-**Bilateral, symmetrical, and scaly dermatitis with hyperkeratosis in photoexposed areas of both hands and feet.



**Fig3:-** White scales on a pigmented background.

**Conflict of interest:**

There is no conflict of interest of any of the authors.

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